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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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MCDERMOTT WILL & EMERY
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER

COURSON, TANIA C

ART UNIT	PAPER NUMBER
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2859

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/892,906

Applicant(s)

JACKSON ET AL.

Examiner

Tania C. Courson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12, 17-26, 28-39 and 44-53 is/are pending in the application.
- 4a) Of the above claim(s) 13-16, 27, 40-43 and 54-124 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 26 and 53 is/are allowed.
- 6) ☒ Claim(s) 1-10, 17-25, 28-37 and 44-52 is/are rejected.
- 7) ☒ Claim(s) 11, 12, 38 and 39 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5, 8, 10.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Election/Restrictions

1. The election requirement stated in the last office action (Paper No. 9) is hereby repeated and thus made FINAL.
2. Applicant's election of Group I (claims 1-54) and further defined election of Species I (claims 1-12, 17-26, 28-39 and 44-53) in Paper No. 11 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).
3. Claims 13-16, 27, 40-43, and 54-124 withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 11.
4. Thus, claims 1-12, 17-26, 28-39 and 44-53 will be further examined in this action.

Drawings

5. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

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Specification

6. The disclosure is objected to because of the following informalities:
- a) on page 23, line 14, correct spelling from "he target" to "the target";
 - b) on page 26, line 9, change "the body 320" to "the body 310", and;
 - c) on page 35, line 19, change "Fig. 11." to "Fig. 13."

Appropriate correction is required.

Claim Objections

7. Claims 7 and 53 are objected to because of the following informalities:
- a) claim 7, in line 2, "axes" should read "axis";
 - b) claim 53, in lines 8-9, "the vision determination system" lacks antecedent basis.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

9. Claims 1, 5-8, 17-25, 28, 32-35, 44-49 and 51-52 are rejected under 35 U.S.C. 102(b) as being anticipated by Appel et al (U.S. Patent No. 3,953,134).

Appel et al. disclose in Figures 1, 3 and 5, an automotive alignment instrument comprising:

With respect to claims 1 and 28:

- a) a vision imaging system (optical systems, column 1, lines 28-29);
- b) a target system including a target body (Fig. 1, unit 10);
- c) one or more target elements (Fig. 1, plurality of graduated vertical lines 66) disposed on the target body and detectable by the position determination system (column 3, lines 67-68 and column 4, lines 1-3);
- d) a point definer (Fig. 5, arm 14) extending from the target body, the point definer including a point (Fig. 5, centering pin 72) capable of being located adjacent the position on the vehicle (Fig 1);
- e) wherein the vision imaging system determines a location of the target body after detecting the target elements disposed on the target body (column 3, lines 67-68 and column 4, lines 1-3).

With respect to claims 5-8 and 32-35:

- a) wherein the point definer includes one or more joints (Fig. 1, tubular section 18) that enable the point to be positioned at a different location relative to the target body;
- b) wherein the one or more joints (Fig. 1) each allow rotation of the point in one or more axis relative to the target body;
- c) wherein the point definer includes one joint (Fig. 1) allowing the point one axis of rotation relative to the target body, the point being positionable in any one of three positions;
- d) wherein each joint includes a lock (Fig. 5, magnet 70) to selectively prevent or allow movement of the point relative to the target body.

With respect to claims 17-25, 44-49 and 51-52:

- a) an attachment device (Fig. 5, magnetic mounting clamp 17) to stabilize the position of the target body relative to the vehicle and the point on the point definer relative to the position of the vehicle to be located.
- b) wherein the attachment device further comprises a receiver (Fig. 5) to which the point definer is attached and a connector (Fig. 5, magnet 70) that connects with the vehicle;
- c) wherein the receiver includes a reference feature (Fig. 5, cap screw 71) that defines the position of the attachment device relative to the point on the point definer;

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- d) wherein the connector defines a positional relationship between the position on the vehicle to be located and the reference feature (Fig. 5);
- e) wherein the receiver defines a cylindrical recess (Fig. 5) into which a portion of the point definer is inserted;
- f) wherein the receiver includes a reference feature (Fig. 5, cap screw 71) that defines the position of the connector relative to the point on the point definer;
- g) wherein the attachment device is adapted to be attached to a strut of the vehicle (Fig. 1);
- h) wherein the reference feature and the receiver prevent movement of the point definer relative to the attachment device in three axes (Fig. 5);
- i) wherein the reference feature is a flat plane bounding a portion of the recess (Fig. 5).

10. Claims 1-4, 9-10, 28-31 and 36-37 are rejected under 35 U.S.C. 102(e) as being anticipated by Hendrix (U.S. Patent No. 6,115,927).

Hendrix discloses in Figures 2, 9 and 14, an automotive measuring device comprising:

With respect to Claims 1 and 28:

- a) a vision imaging system (Fig. 2, measuring system 10);
- b) a target system including a target body (Fig. 9, probe 18a, line 36);

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- c) one or more target elements (Fig.2, emitters 14) disposed on the target body and detectable by the position determination system (column 5, lines 64-67 and column 6, line 1);
- d) a point definer (Fig. 9, tip 42) extending from the target body, the point definer including a point capable of being located adjacent the position on the vehicle (Fig 2);
- e) wherein the vision imaging system determines a location of the target body after detecting the target elements disposed on the target body (column 5, lines 64-67 and column 6, line 1).

With respect to Claims 2-4 and 29-31:

- a) wherein the point on the point definer is at a known location from the target body (Fig. 9);
- b) wherein the point is at a distal end of the point definer (Fig. 9);
- c) wherein the point is at the vertex of a conical projection at the distal end of the point definer (Fig. 9).

With respect to Claims 9-10 and 36-37:

- a) a trigger (Fig. 14, trigger 43) for operating the detection of the target system by the position determination system;
- b) wherein the trigger is positioned on the target body and is remote from the position determination system (column 6, lines 6-9).

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Allowable Subject Matter

11. Claims 11-12 and 38-39 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

12. Claims 26 and 53 are allowed.

Double Patenting

13. Claim 50 is objected to under 37 CFR 1.75 as being a substantial duplicate of claim 48. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Examiner believes the applicant intended for claim 51 to be dependent on claim 49, similar to how claim 24 is dependent on claim 23. The examiner has examined the claims based on this assumption, please clarify whether or not this was a correct assumption.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited on PTO-892 and not mentioned above disclosed relative devices:

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- a) Van den Bossche discloses a device and method for determining the position of a point;
- b) Baird discloses a method of and means for establishing vehicle datum;
- c) Hedgecock, Jr. discloses a vehicle rear end alignment device;
- d) Borner et al. Disclose a wheel alignment rim clamp claw ;
- e) Bergstrom discloses a measuring location sensor for linear measuring devices;
- f) Pettersen et al. (U.S. Patent No. 5,440,392) discloses a method and system for point by point measurement of spatial coordinates;
- g) Andersson discloses wheel alignment apparatus for vehicles;
- h) Woodruff discloses a laser alignment system for vehicles;
- i) Morrison et al. disclose a wheel alignment method and apparatus;
- j) Ringle discloses a wheel alignment gauge assembly, and;
- k) MacMillan discloses an attaching means for wheel gauge.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tania C. Courson whose telephone number is (703) 305-3031. The examiner can normally be reached on Monday-Friday from 8:00AM to 4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego Gutierrez, can be reached on (703) 308-3875. The fax number for this Organization where this application or proceeding is assigned is (703) 308-7724.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.



DIEGO F.F. GUTIERREZ
SUPERVISORY PATENT EXAMINER
GROUP ART UNIT 2859

TCC
September 30, 2002